AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-22. (canceled)

23. (new) A feed and control system for an internal combustion engine that is fed with two different fuels, the engine including plural first members (26) for introducing a first fuel into corresponding explosion chambers and plural second members (6) for introducing a second fuel into the corresponding explosion chambers, the system comprising:

a control unit (8) the controls both the first and second members;

a pressure regulator (11) in a conduit (3) through which the second fuel is fed from a tank to the second members, said pressure regulator being arranged and adapted to regulate a density and pressure of the second fuel; and

control means (21) for controlling said pressure regulator so that times for introducing the second fuel into the explosion chambers are equal to times for introducing the first fuel into the explosion chambers so that said control unit controls the second members in the same manner as the first members for the same engine operating conditions, said control means being separate from said control unit.

24. (new) The system as claimed in claim 23, wherein a quantity of the second fuel (Qe) stoichiometrically equivalent to a quantity of the first fuel (Qb) is introduced into the explosion chambers when the engine is fed with the second fuel, said stoichiometric equivalence (Qb, Qe) of the first and second fuels enabling their times of introduction into the explosion chambers to be maintained equal.

25. (new) The system as claimed in claim 23, wherein said pressure regulator is a proportional solenoid valve having a valving element (17) arranged to act on the flow of the second fuel, said valving element being controlled by an actuator (15), the operation of which is subjected to the control means (21) at least on the basis of physical parameters related to conditions of the second fuel.

26. (new) The system as claimed in claim 23, wherein said control means determines further present parameters related to the engine operation during the introduction of the second fuel into the explosion chambers and acts on said pressure regulator on the basis of a comparison of said present parameters with predetermined parameters.

27. (new) The system as claimed in claim 25, wherein the physical parameters are the pressure and the temperature of the second fuel downstream of said pressure regulator.

28. (new) The system as claimed in claim 26, wherein the present parameters are at least the temperature of the

cooling water (Tw) of the engine and the times at which the second fuel is injected into the explosion chambers.

29. (new) The system as claimed in claim 25, wherein said control means comprises at least one drive member (67) for said actuator.

30. (new) The system as claimed in claim 29, wherein said actuator is electrically powered, said drive member acting on interruption means (68) for interrupting the electric power (69) in order to control operation of said actuator.

31. (new) The system as claimed in claim 30, wherein said interruption means is a static switch (68), said drive member being a voltage modulator modulating the duration of command pulses of said static switch.

32. (new) The system as claimed in claim 26, wherein said control means comprises a microcontroller (64) cooperating with a memory unit (63) in which the predetermined parameters are memorized, translation means (60, 61) for comparing the present parameters with corresponding ones of the predetermined values, and connection means (65, 66) for connection to an electrical processor external to the system, which is arranged to feed the predetermined values into said memory unit.

33. (new) The system as claimed in claim 32, wherein said translation means comprises filters and an analog/digital converter (61), said connection means comprising a UART block (64) and logic gate (66).

34. (new) The system as claimed in claim 32, wherein said control means is part of said pressure regulator.

35. (new) The system as claimed in claim 32, wherein said control means is separated from said pressure regulator.

36. (new) The system as claimed in claim 30, wherein said control means cooperates with reference generator (75) and with a pulse sequence generator member (76) connected to said interruption means.

37. (new) The system as claimed in claim 36, wherein said reference generator comprises means for evaluating existing operation macrostates of the engine and means for evaluating existing operation states of the engine, said macrostates comprising engine warm-up and its steady-state operation, the operation states being internal to each macrostate and comprising the constant operating conditions state (90), the acceleration transient state (91), the release or deceleration and/or braking state (92), the feed cutoff state (93) if the engine operates at high r.p.m. or with the pedal released, the state (94) of reentry from said feed cutoff state (93) and the state (95) of reentry from said feed cutoff state (93) followed by an acceleration transient.

38. (new) The system as claimed in claim 23, further comprising means (23) between said control unit and the second introduction members for increasing the intensity of a current

absorbed by the second members compared with a current generated by said control unit.

39. (new) The system as claimed in claim 38, further comprising, for emulating the impedance of the first members a circuit (24) interposed between said control unit and said means (23) for acting on the intensity of the current fed to the second members.

40. (new) The system as claimed in claim 23, wherein the conduit is a common conduit (5) for all the second members downstream of said pressure regulator.

41. (new) The system as claimed in claim 23, wherein the conduit comprises a plurality of conduits which are each connected to at least one second member and are positioned downstream of said pressure regulator to feed the second fuel to the second members.

42. (new) A method of feeding and controlling operation of an internal combustion engine that is fed with two different fuels, the engine including plural first members (26) for introducing a first fuel into corresponding explosion chambers and plural second members (6) for introducing a second fuel into the corresponding explosion chambers, the engine having a control unit (8) that controls both the first and second members;

regulating a density and pressure of the second fuel in a pressure regulator (11) in a conduit (3) through which the second fuel is fed from a tank to the second members; and

controlling the pressure regulator with a controller (21) separate from the control unit so that times for introducing the second fuel into the explosion chambers are equal to times for introducing the first fuel into the explosion chambers so that the control unit controls the second members in the same manner as the first members for the same engine operating conditions.

43. (new) The method as claimed in claim 42, wherein the controller controls the pressure regulator to feed the second fuel to the second members in a quantity (Qe) equivalent for oxido-reduction purposes to a quantity (Qb) of the first fuel.

44. (new) The system as claimed in claim 42, wherein the density of the second fuel is controlled by controlling and regulating the pressure in at least one conduit in which the second fuel is present and to which the second members are connected.

45. (new) The system as claimed in claim 42, wherein the density of the second fuel is controlled by controlling the temperature of the second fuel when it is present in at least one conduit to which the second members are connected.